



REPORTE DE CALIDAD DE TUBERIA (Quality Report)

Cod: FPD-PR-01-06

SISTEMA DE GESTION DE LA CALIDAD

Edición : 0

Revision: 4

Fecha de Rev: 15 Junio 2013

1/4

REPORTE FS
(Report No.)

05/07/2013

-3

Tipo de Producto (Type of Pipe/Delivery Condition):	Orden Interna de Fabricacion (Work Order)	Diámetro (Diameter)	Espesor (Thickness) pulg (ft)	Espesor (Thickness) pulg (mm)	Longitud (Legth) mtrs	Longitud (Legth) pies (ft)	Norma (Specification):	Grado (Grade):	Peso (mass) lbs.	Peso (mass) kg.	Tamaño (Size)	Peso Lineal (Mass per meter) lbs. X pie	Peso Lineal (Mass per meter) kg. X mtr.	Numeros de Tubo (Pipe Number)						
ERW	269		0.250	6.35	12.2	40.026	ASTM A-53	Grado B	681.8972671	309.3033975	0.168	17.03625303	25.3527375	516						
# lote	# colada (Heat)	Composición Química del Acero (Steel Chemical Composition):											Propiedades mecánicas del Acero de la Tuberia (Steel Mechanical's Proprieties):							
		C	Si	Mn	P	S	V	B	Cr	Cu	Ni	Mo	Clw	Limite Traccion (Tensile Strength) KSI (MPA)		Limite Elastico (Yield Point) KSI (MPA)		% Elongación (Englotation)		
													T	W	L	T	L	T		
269-10-20	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-10-8A	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-10-8B	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-11-11A	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-11-11B	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-11-12	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-11-14B	1340473012	0.084	0.016	0.338	0.008	0.003	0	0	0.011	0.007	0.009	0.001	0.10255	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-11-5A	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-11-5B	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-1-21B	1340473012	0.084	0.016	0.338	0.008	0.003	0	0	0.011	0.007	0.009	0.001	0.10255	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-13-14A	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-13-14B	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-13-16A	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-13-16B	1330474012	0.08	0.016	0.342	0.008	0.008	0	0	0.011	0.009	0.01	0.001	0.09886667	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-14-11A	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-11B	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-15A	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-15B	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-22A	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-22B	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-25	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-26	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-28	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-29	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-14-30	269719011	0.095	0.011	0.344	0.008	0.006	0	0	0.016	0.027	0.013	0.002	0.11506667	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A



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ID	Código	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-21	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-22	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-23	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-25	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-26	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-28	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-29	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-3	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-30	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-31	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-32	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-33	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-34	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-36	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-37	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-38	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-39	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-4	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-40	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-41	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-5	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-6	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-7	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-8	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-9	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-39-10	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-39-11	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-39-12	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-39-13	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-39-20	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-39-21	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-39-24	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-39-8	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-42-58	1340474012	0.084	0.019	0.323	0.007	0.002	0	0	0.011	0.007	0.01	0.001	0.10191667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-42-59	1340474012	0.084	0.019	0.323	0.007	0.002	0	0	0.011	0.007	0.01	0.001	0.10191667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-48-10	1212120012	0.187	0.181	0.738	0.009	0.002	0	0	0	0	0	0	0.22993333	N/A	57.2(463)	68.54(471.37)	N/A	44.4(306)	N/A	34
269-48-11	1212120012	0.187	0.181	0.738	0.009	0.002	0	0	0	0	0	0	0.22993333	N/A	67.2(463)	68.54(471.37)	N/A	44.4(306)	N/A	34



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269-48-12	1212120012	0.187	0.181	0.738	0.009	0.002	0	0	0	0	0	0	0.22993333	N/A	67.2(463)	68.54(471.37)	N/A	44.4(306)	N/A	34		
269-48-13	1212120012	0.187	0.181	0.738	0.009	0.002	0	0	0	0	0	0	0.22993333	N/A	67.2(463)	68.54(471.37)	N/A	44.4(306)	N/A	34		
269-48-17	1212120012	0.187	0.181	0.738	0.009	0.002	0	0	0	0	0	0	0.22993333	N/A	67.2(463)	68.54(471.37)	N/A	44.4(306)	N/A	34		
269-48-8	1212120012	0.187	0.181	0.738	0.009	0.002	0	0	0	0	0	0	0.22993333	N/A	67.2(463)	68.54(471.37)	N/A	44.4(306)	N/A	34		
269-48-9	1212120012	0.187	0.181	0.738	0.009	0.002	0	0	0	0	0	0	0.22993333	N/A	67.2(463)	68.54(471.37)	N/A	44.4(306)	N/A	34		
269-49-2A	1232366012	0.185	0.153	0.723	0.011	0.002	0	0	0	0	0	0	0.22625	69.97(481.21)	N/A	N/A	46.71(321.24)	N/A	32	N/A		
269-49-2B	1232366012	0.185	0.153	0.723	0.011	0.002	0	0	0	0	0	0	0.22625	69.97(481.21)	N/A	N/A	46.71(321.24)	N/A	32	N/A		
269-50-16	1232366012	0.185	0.153	0.723	0.011	0.002	0	0	0	0	0	0	0.22625	69.97(481.21)	N/A	N/A	46.71(321.24)	N/A	32	N/A		
269-53-14	1242314012	0.206	0.115	0.707	0.009	0.004	0	0	0	0	0	0	0.24518333	70.21(484.10)	N/A	N/A	56.24(387.77)	N/A	30	N/A		
269-54-5	1242314012	0.206	0.115	0.707	0.009	0.004	0	0	0	0	0	0	0.24518333	70.21(484.10)	N/A	N/A	56.24(387.77)	N/A	30	N/A		
269-55-10	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-10-A	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-10-B	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-11	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-11-A	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-11-B	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-15	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-22	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-22-A	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-22-B	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-24	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-25	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-3	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-6	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-6-A	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-6-B	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-7	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-8	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-9	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-9-A	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-55-9-B	112779	0.075	0.017	0.812	0.017	0.0039	0	0	0	0	0	0	0.11616667	70.27(483.27)	N/A	51(350.74)	N/A	N/A	30	N/A		
269-56-10	14722	0.07	0.02	0.8	0.007	0.002	0	0	0	0	0	0	0.11066667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A		
269-56-11	14722	0.07	0.02	0.8	0.007	0.002	0	0	0	0	0	0	0.11066667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A		
269-56-2	14722	0.07	0.02	0.8	0.007	0.002	0	0	0	0	0	0	0.11066667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A		
269-56-9	14722	0.07	0.02	0.8	0.007	0.002	0	0	0	0	0	0	0.11066667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A		
269-57-26	14722	0.07	0.02	0.8	0.007	0.002	0	0	0	0	0	0	0.11066667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A		
269-57-28	14722	0.07	0.02	0.8	0.007	0.002	0	0	0	0	0	0	0.11066667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A		



REPORTE DE CALIDAD DE TUBERIA (Quality Report)

Cod: FPD-PR-01-06

SISTEMA DE GESTION DE LA CALIDAD

Edición : 0

Revision: 4

Fecha de Rev: 15 Junio 2013

		SISTEMA DE GESTION DE LA CALIDAD													Edición : 0		Revision: 4			
															Fecha de Rev: 15 Junio 2013					
269-57-29	14722	0.07	0.02	0.8	0.007	0.002	0	0	0	0	0	0	0.11066667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-57-30	14722	0.07	0.02	0.8	0.007	0.002	0	0	0	0	0	0	0.11066667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-7-14A	1242383012	0.202	0.17	0.687	0.007	0.003	0	0	0	0	0	0	0.24201667	70.21(484.10)	N/A	N/A	56.24(387.77)	N/A	30	N/A
269-7-14B	1242383012	0.202	0.17	0.687	0.007	0.003	0	0	0	0	0	0	0.24201667	70.21(484.10)	N/A	N/A	56.24(387.77)	N/A	30	N/A
269-8-25	1242383012	0.202	0.17	0.687	0.007	0.003	0	0	0	0	0	0	0.24201667	70.21(484.10)	N/A	N/A	56.24(387.77)	N/A	30	N/A
269-9-13	1340473012	0.084	0.016	0.338	0.008	0.003	0	0	0.011	0.007	0.009	0.001	0.10255	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-9-15	1340473012	0.084	0.016	0.338	0.008	0.003	0	0	0.011	0.007	0.009	0.001	0.10255	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-9-19A	1340473012	0.084	0.016	0.338	0.008	0.003	0	0	0.011	0.007	0.009	0.001	0.10255	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-9-29A	1340473012	0.084	0.016	0.338	0.008	0.003	0	0	0.011	0.007	0.009	0.001	0.10255	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-9-8	1340473012	0.084	0.016	0.338	0.008	0.003	0	0	0.011	0.007	0.009	0.001	0.10255	62.35(429.91)	N/A	N/A	50.85(350.58)	N/A	31	N/A
269-20-5	1320481012	0.08	0.012	0.327	0.01	0.004	0	0	0.01	0.004	0.025	0.001	0.09793333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-23-28	1320630012	0.085	0.009	0.334	0.007	0.002	0	0	0.012	0.008	0.016	0.001	0.10333333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-23-33	1320630012	0.085	0.009	0.334	0.007	0.002	0	0	0.012	0.008	0.016	0.001	0.10333333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-32-32	1320480012	0.093	0.017	0.334	0.013	0.003	0	0	0.01	0.005	0.025	0.001	0.1115	55.46(382.41)	N/A	N/A	45.96(316.90)	N/A	35	N/A
269-32-35	1320480012	0.093	0.017	0.334	0.013	0.003	0	0	0.01	0.005	0.025	0.001	0.1115	55.46(382.41)	N/A	N/A	45.96(316.90)	N/A	35	N/A
269-32-36	1320480012	0.093	0.017	0.334	0.013	0.003	0	0	0.01	0.005	0.025	0.001	0.1115	55.46(382.41)	N/A	N/A	45.96(316.90)	N/A	35	N/A
269-36-13	1340602012	0.083	0.018	0.322	0.006	0.002	0	0	0.009	0.008	0.012	0.001	0.10081667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-36-14	1340602012	0.083	0.018	0.322	0.006	0.002	0	0	0.009	0.008	0.012	0.001	0.10081667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-36-15	1340602012	0.083	0.018	0.322	0.006	0.002	0	0	0.009	0.008	0.012	0.001	0.10081667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-36-17	1340602012	0.083	0.018	0.322	0.006	0.002	0	0	0.009	0.008	0.012	0.001	0.10081667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-36-20	1340602012	0.083	0.018	0.322	0.006	0.002	0	0	0.009	0.008	0.012	0.001	0.10081667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-36-33	1340602012	0.083	0.018	0.322	0.006	0.002	0	0	0.009	0.008	0.012	0.001	0.10081667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-36-34	1340602012	0.083	0.018	0.322	0.006	0.002	0	0	0.009	0.008	0.012	0.001	0.10081667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-37-13	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-37-18	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-37-20	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-37-21	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-37-24	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-37-25	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-37-27	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-37-30	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-27	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-38-35	1310443012	0.083	0.012	0.321	0.014	0.002	0	0	0.013	0.005	0.028	0.001	0.10088333	61(419.52)	N/A	N/A	48(330.11)	N/A	25	N/A
269-40-21	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-40-24	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-40-28	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-40-29	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A



REPORTE DE CALIDAD DE TUBERIA (Quality Report)

Cod: FPD-PR-01-06

SISTEMA DE GESTION DE LA CALIDAD

Edición : 0

Revision: 4

Fecha de Rev: 15 Junio 2013

269-40-30	1320471012	0.093	0.014	0.322	0.01	0.005	0	0	0.012	0.007	0.014	0.001	0.11081667	73.44(505.07)	N/A	N/A	66.30(455.97)	N/A	27	N/A
269-42-2	1340474012	0.084	0.019	0.323	0.007	0.002	0	0	0.011	0.007	0.01	0.001	0.10191667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-42-2	1340474012	0.084	0.019	0.323	0.007	0.002	0	0	0.011	0.007	0.01	0.001	0.10191667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A
269-42-2	1340474012	0.084	0.019	0.323	0.007	0.002	0	0	0.011	0.007	0.01	0.001	0.10191667	50.85(349.71)	N/A	N/A	62.35(428.80)	N/A	31	N/A

**Prueba Hidros. (PSI)
(Hydrostatic Test).**

**Tratamiento Térmico
(Heat Treatment).**

Pruebas de Laboratorio Propiedades Mecánicas (Mechanical test Results)

Presión (Pressure).	Duración (Time).	Tipo (Type).	T°C mín. (Temp).	Metalografía	Método de Inspección No-Destructiva (Non destructive Test Method).	Indicadores de Referencia (Reference Indicator)	Resultado de Macrografía (Macrographic test Result)	Prueba de Aplastamiento (Flattening Test)	Resultado de Prueba de Impacto (Charpy Test) Metal Base (Base Metal). Prom(Average).	Temperatura de Prueba de Impacto (Charpy Test Temperature).	Doblez Guiado (Bending Test) (QW-160)	
1611	10 Seg.	NORMALIZADO	540°C	ACEPTADO	UltraSonido (UT)	ACEPTADO (Accepted)	N 10	ACEPTADO (Accepted)	ACEPTADO (Accepted)	N/A	N/A	N/A

Este certificado ampara los números de serie de los tubos manifestados, los cuales fueron fabricados, inspeccionados y aceptados de acuerdo a los requerimientos de las especificación arriba mencionada; FORZA STEEL no garantiza el producto que sea utilizado inapropiadamente

Ing. Marcelo Romelio Estrada
 Director de Calidad
 Asesoramiento de Calidad (Quality Assurance Chile)
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 Carretera Salinas Altas s/n, C.P. 65500